FINEIR INFRARED TOUCH PANEL

INSTRUCTION MANUAL

Revision 1.8



THE FOLLOWING IS A LIST OF REGISTERED PATENTS BELONGING TO FINEIR:

02149761.3, 03113702.4,200620155561.X,200710026696.5,200710028679.5,200720048219.4, 200720051069.2,200720052423.3,200720053003.7,200810026560.9,200810199142.X,200820044446.4, 200820049720.7,200820200361.0,200910036793.1,200920052466.0,200920060780.3,200920060781.8, US7429706,CN101329612A,PCT/CN2008/000259,08113806.9,09112101.2,09112100.3,1109024A, 1113642A,1127816A

FINEIR TECHNOLOGY (FAR EAST) CO.

ADDRESS: RM B,7/F, BLK D, WAI KEE INDUSTRIAL BUILDING, NO. 25 HUNG TO ROAD,KWUN, TONG, KOWLOON, HONG KONG.

TEL:+852-3643-7512

FAX:+852-2342-1559

E-MAIL:SALES@FINEIR.COM

WEBSITE:WWW.FINEIR.COM

by Interdipros srl - www.interdi.it

3 INTEGRATING THE GLASS OVERLAY OR OTHER OVERLAY

THIS SECTION OF THE MANUAL DETAILS THE RECOMMENDED ASSEMBLY GUIDELINES FOR INTEGRATING THE GLASS OVERLAY OR OTHER TYPES OF OVERLAY INTO THE FINEIR TOUCH PANEL.

> **NOTES:**
> - BEFORE INTEGRATING THE GLASS OR ANOTHER TYPE OF OVERLAY (SUCH AS ACRYLIC OR PLASTIC), ENSURE THAT THE DIMENSIONS ARE MADE ACCORDING TO THE TOUCH PANEL DIMENSIONS. INCORRECT DIMENSIONS MAY CAUSE UNEXPECTED INTEGRATING RESULTS.
> - INCORRECT INTEGRATION OF THE GLASS OVERLAY COULD CAUSE UNSAFE OPERATION; THEREFORE THESE GUIDELINES SHOULD BE STRICTLY FOLLOWED.
> - INTEGRATION DIAGRAMS OUTLINED IN THIS SECTION ARE FOR REFERENCE ONLY AND ARE NOT TO SCALE.

IMPORTANT!

- **IT IS RECOMMENDED THAT YOU DO A SIMPLE CONNECTION TEST OF THE TOUCH PANEL AFTER IT IS ASSEMBLED TO MAKE SURE THAT IS IT FUNCTIONING PROPERLY BEFORE ATTACHING THE GLASS OVERLAY. IF IT IS NOT FUNCTIONING PROPERLY, THEN YOU MUST CHECK THE CONNECTIONS OF PIN UNTIL THE PANEL PASSES THE CONNECTION TEST.**
- **FOLLOW THE STEPS IN SECTION 4.7 TO CONNECT THE TOUCH PANEL TO YOUR COMPUTER, THEN INSTALL THE TOUCH CONTROL SOFTWARE DETAILED IN SECTION 5 TO DO A CONNECTION TEST.**

WARNING!

- **THE 3M ADHESIVE MUST BE LEFT TO DRY FOR AT LEAST 12 HOURS BEFORE INSTALLING THE TOUCH PANEL ONTO YOUR DISPLAY, OTHERWISE THE TOUCH PANEL COULD OPERATE IN AN UNSAFE MANNER.**
- **EVENLY DISTRIBUTE PRESSURE ONTO THE GLASS WHEN APPLYING THE 3M ADHESIVE.**
- **GLASS THICKNESS OF AT LEAST 5MM IS RECOMMENDED FOR PANEL SIZES OVER 42".**
- **TEMPERED GLASS IS RECOMMENDED TO ACHIEVE THE HIGHEST SAFETY STANDARD.**

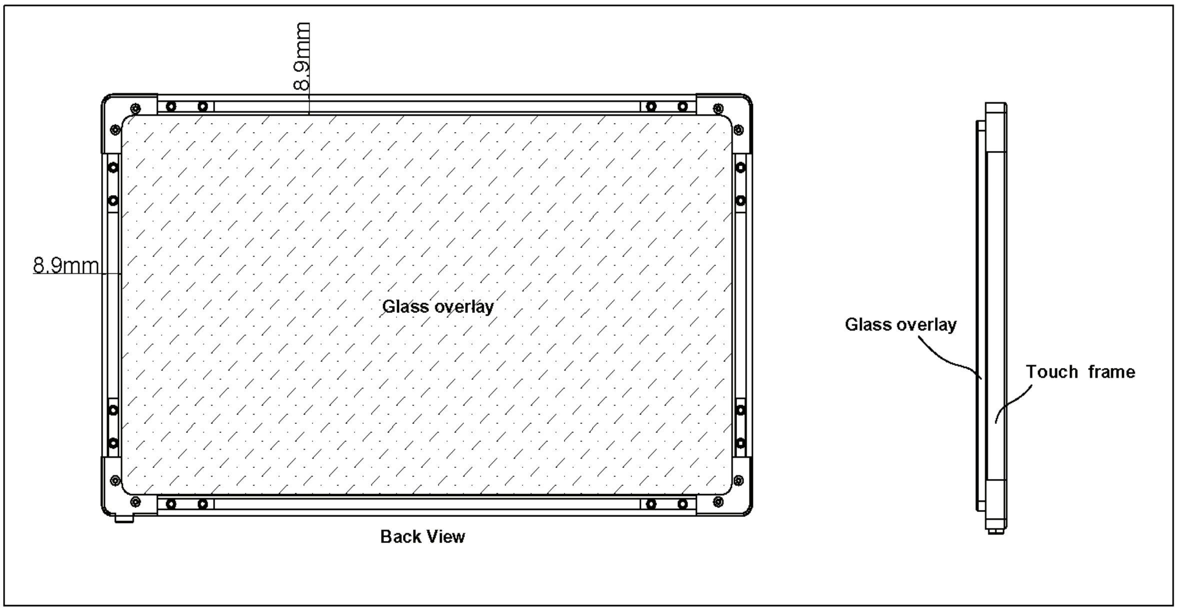
3.1 NECESSARY PARTS FOR INTEGRATING THE OVERLAY

1. 3M VHB ADHESIVE TAPE
2. A PIECE OF TEMPERED GLASS CUT WITH THE CORRECT DIMENSIONS

3.2 Glass Overlay Size Requirement

Figure 6 details the required size of the glass overlay for the FineIR Touch Panel.

Figure 6

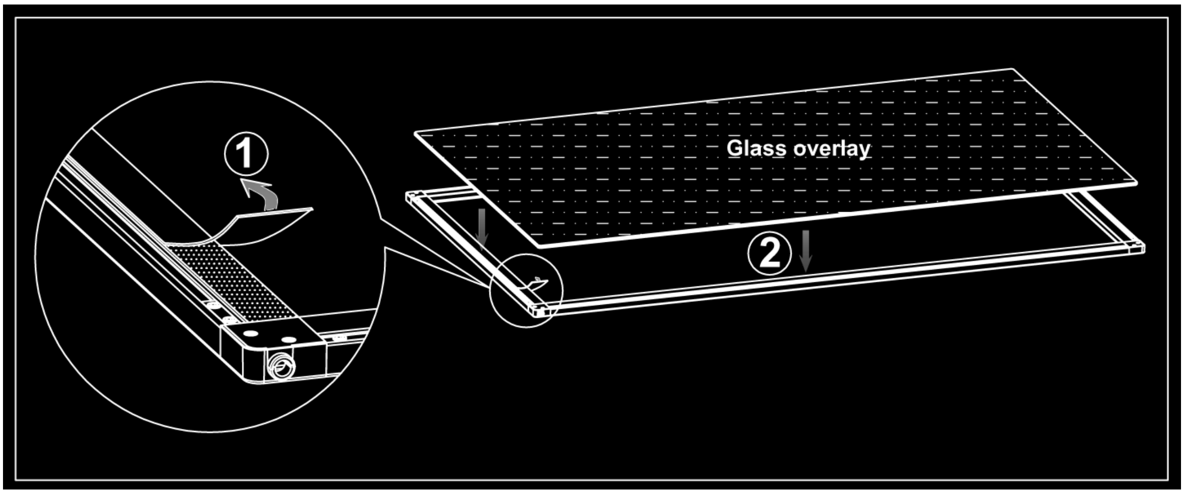


If you plan to use the Adjustable Hook method to install the Touch Panel to your Display, the size of the glass overlay must be at least 8.9mm smaller than the size of the Panel on all 4 sides. If using Adhesion, then the glass overlay can be the same size as the Panel.

3.3 Attaching the Glass Overlay by Adhesion

Figure 7 illustrates the glass overlay adhesion process.

Figure 7



To correctly install the glass overlay, follow the steps below:

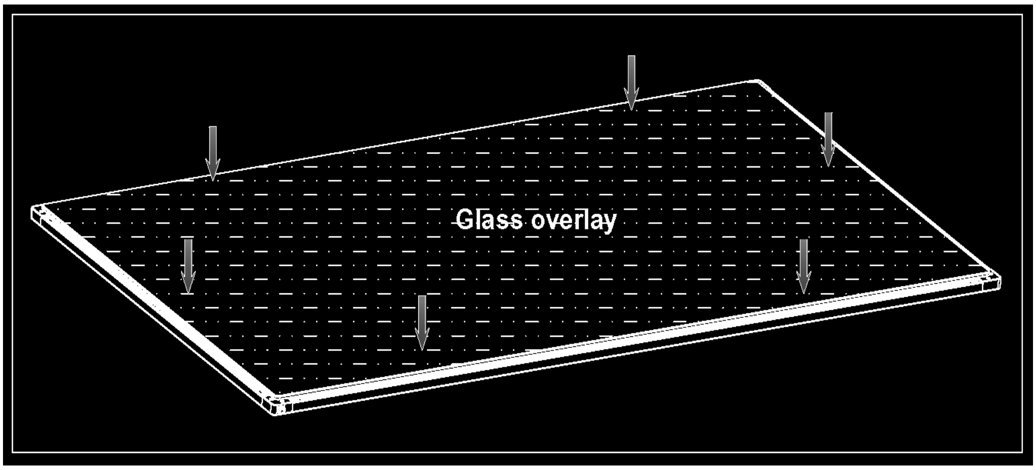
- Clean up the surface of the bezel as well as the glass before applying the Adhesive Tape. If alcohol, acetaldehyde or formaldehyde is used for cleaning, water must be used to clean up the alcohol agent from the surface of the bezel, otherwise the adhesive may degrade quickly and cause the bonding to fail.

Continued on next page…

- Apply the 3M adhesive to the back side of bezel following step 1 as shown in **Figure 7**.
- Adhere the glass overlay on to the back side of bezel following step 2 as shown in **Figure 7**.
- Apply constant pressure evenly on the glass by leaving weights, such as books, as shown in **Figure 8**.

Figure 8 illustrates how pressure should be applied on the glass overlay.

Figure 8



IMPORTANT!

- **Ensure that the glass is correctly aligned with the Panel along the edges.**
- **Apply constant pressure evenly on the glass overlay with weights as shown in Figure 8.**
- **Let the adhesive dry for at least 12 hours before proceeding to the next step.**

4 INSTALLING THE FINEIR TOUCH PANEL ONTO THE DISPLAY

This Section of the Manual details the recommended installation guidelines to install the FineIR Touch Panel onto your Display.

> **Notes:**
> - Before installing the FineIR Touch Panel on your display, ensure that it is **NOT** connected to your Computer.
> - Correct installation of the FineIR Touch Panel is vital to achieving perfect performance.
> - Mounting the Touch Panel could have a detrimental effect on the performance of the FineIR touch Panel if done incorrectly, therefore guidelines should be followed.
> - Installation diagrams in this section are for reference only and are not to scale.

4.1 Typical Installation Guidelines

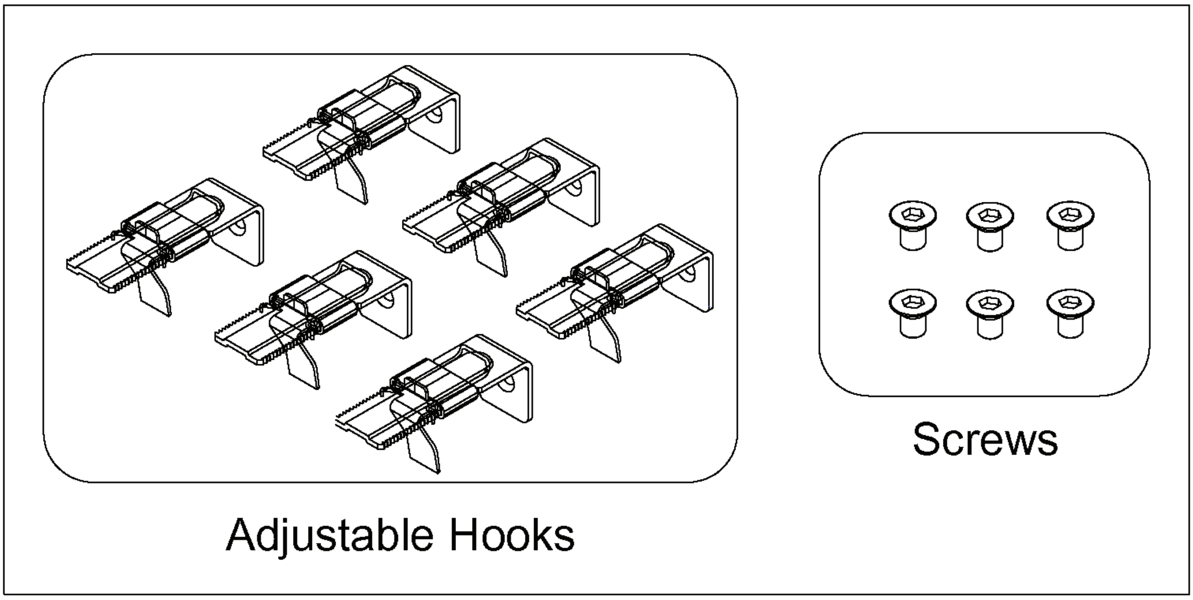
There are two options to mount a FineIR Touch Panel onto the Display unit. Normally the Touch Panel is mounted with our patented Adjustable Hooks. An alternative method is by using adhesion, however this method must be carried out carefully, because it is very difficult to revert once the adhesive bonding has set. The installer must follow these instructions in order to avoid any mishandling or damage. If installing by Adjustable Hook, please follow **Steps 4.3-4.5** detailed in this Section. If installing by adhesion, please skip to **Step 4.6**.

4.2 Necessary Parts for Installing the FineIR Touch Panel

1. Adjustable hooks – 6 pieces (depending on Panel size)
2. Screws - 6 pieces (depending on Panel size)
3. 3M VHB Adhesive Tape

Figure 9 shows the necessary parts for installing the FineIR Touch Panel onto your display.

Figure 9

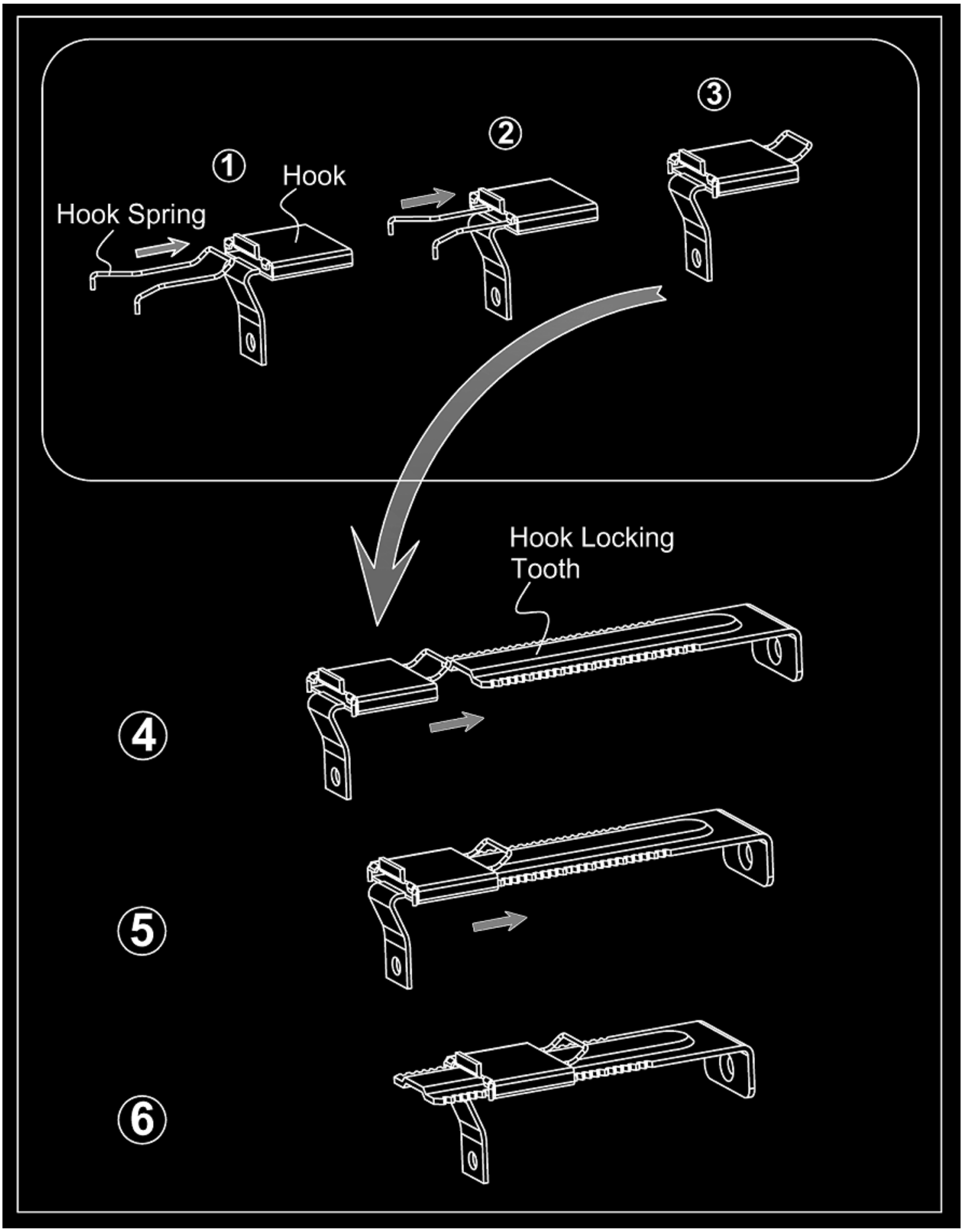


4.3 Adjustable Hook Assembly and Disassembly

Our patented Adjustable Hooks are specially designed to allow for simple mounting and dismounting of the FineIR Touch Panels without using any adhesive materials. This design enables the end user to change the Display unit frequently if necessary. It also allows for much easier maintenance of the Display or the Touch Panel if required.

FIGURE 10 ILLUSTRATES THE DIRECT ASSEMBLY AND DISASSEMBLY OF AN ADJUSTABLE HOOK.

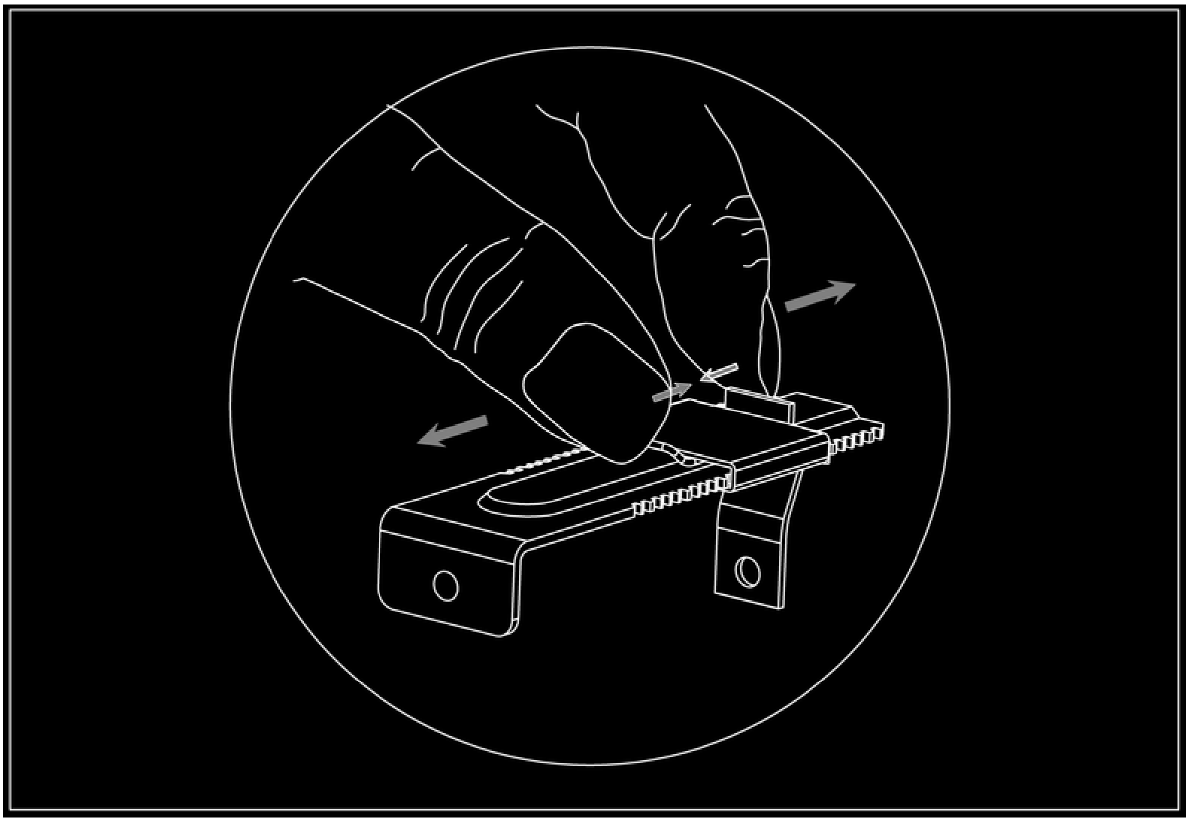
FIGURE 10



TO ASSEMBLE AN ADJUSTABLE HOOK, START BY INSERTING THE HOOK SPRING INTO THE HOOK PIECE, AS SHOWN IN STEPS 1 TO 3 OF **FIGURE 10**. ENSURE THAT BOTH PIECES ARE FACING THE RIGHT DIRECTION BEFORE PROCEEDING. AFTERWARDS, INSERT THE HOOK LOCKING PIECE INTO THE COMPLETED HOOK FROM THE OPPOSITE SIDE OF WHERE YOU INSERTED THE HOOK SPRING, AS SHOWN IN STEPS 4 TO 6. A FINISHED ADJUSTABLE HOOK SHOULD BE SECURE ON THE HOOK LOCKING PIECE AND SHOULD NOT BE TILTED IN ANY DIRECTION.

FIGURE 11 ILLUSTRATES HOW TO ADJUST THE HOOKS.

FIGURE 11

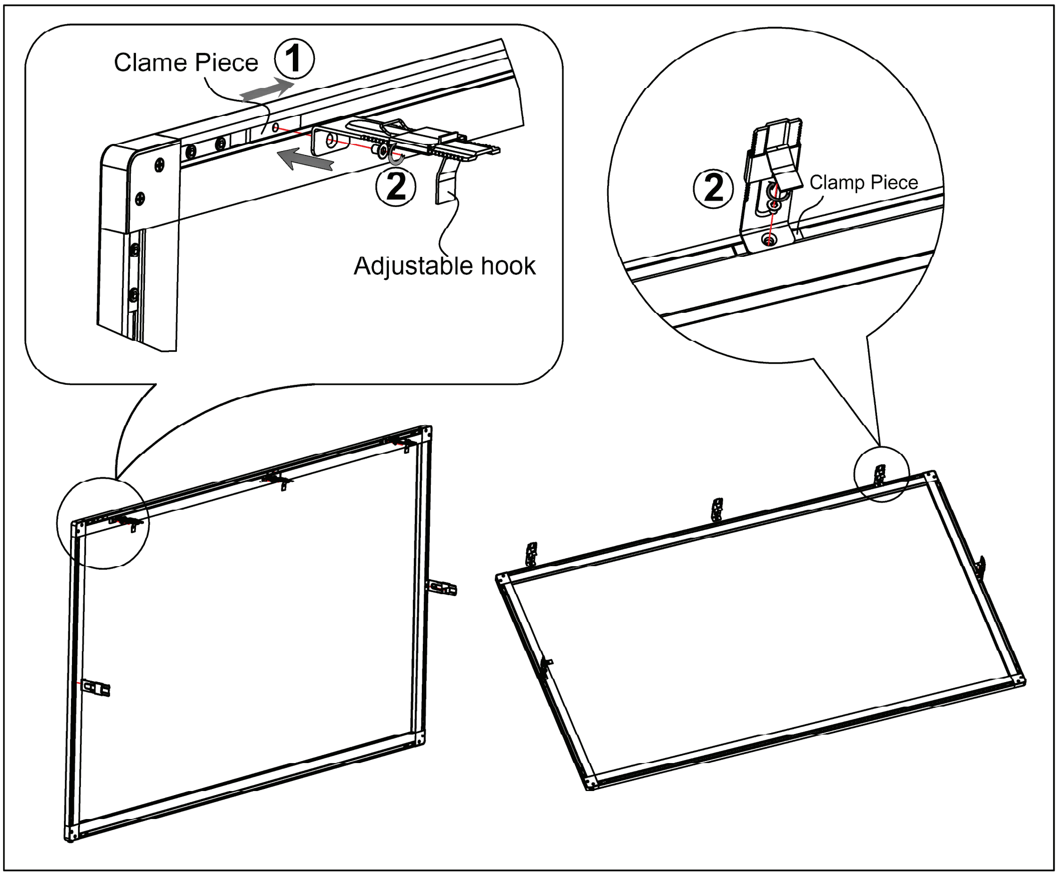


TO ADJUST THE HOOKS, SIMPLY PRESS DOWN ON THE HOOK SPRING WITH YOUR THUMB WHILE HOLDING THE HOOK PIECE WITH YOUR INDEX FINGER, AS SHOWN IN **FIGURE 11**. YOU SHOULD SEE THE HOOK SPRINGS PROTRUDING FROM THE OTHER END OF THE HOOK PIECE, ALLOWING YOU TO SLIDE THE HOOK ALONG THE LOCKING PIECE FREELY.

4.4 Installing the Adjustable Hook onto the FineIR Touch Panel Bezel

Figure 12 illustrates how to install the Adjustable Hooks onto the Bezel.

Figure 12



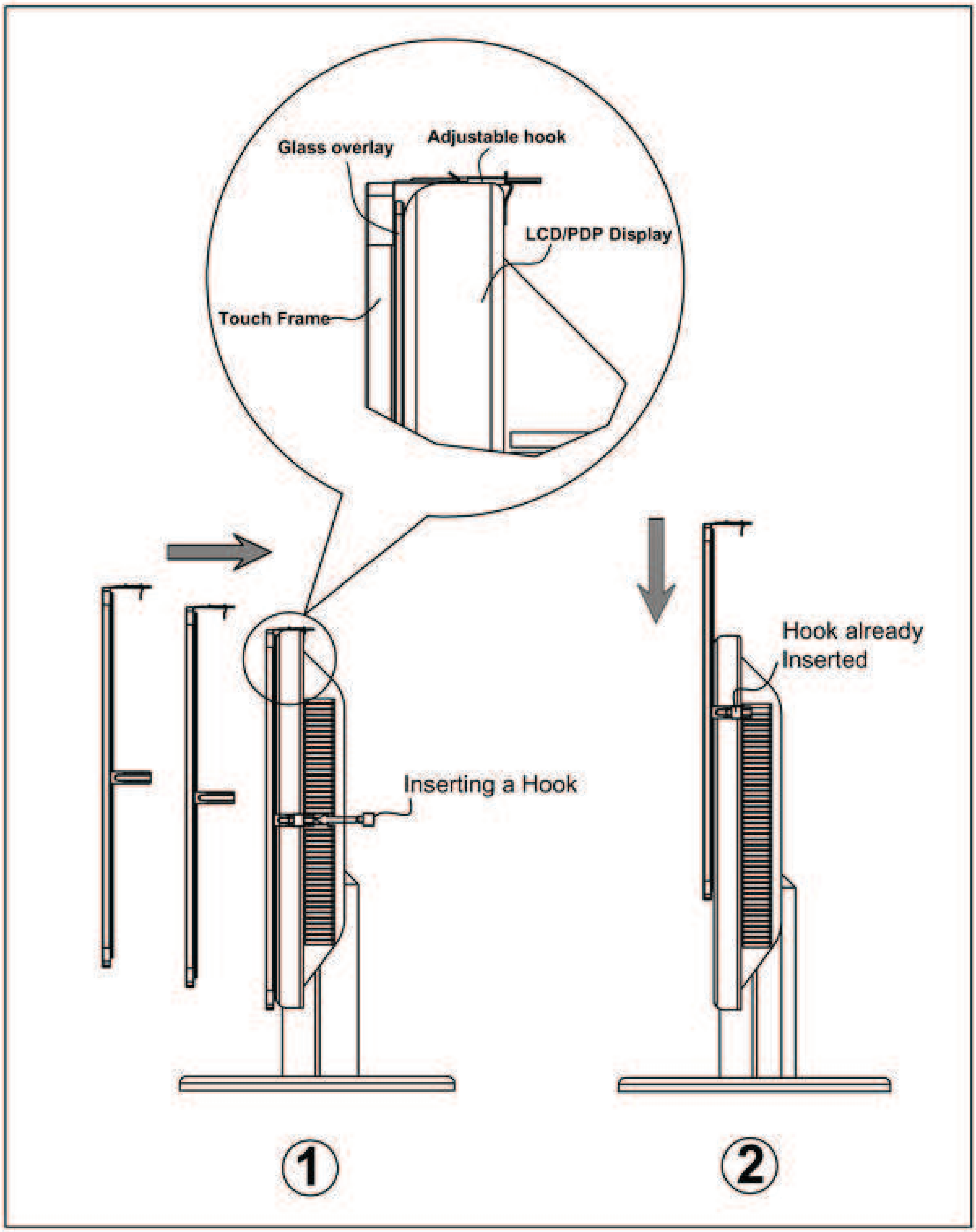
Ensure that the locking mechanism is facing inward, then Attach the Hooks onto the Bezel Clamp Piece with screws on the top, left and right sides of the Bezel following steps 1 and 2, as seen in **Figure 12**. Ensure that the screws are not fastened to tightly, otherwise the Clamp piece will not able to move freely along the Bezel. This step is critical to correctly mounting the FineIR Touch Panel onto your Display.

4.5 Mounting the FineIR Touch Panel onto the Display by Adjustable Hook

When mounting the Panel, it is recommended that it be carried by two people for sizes larger than 32".

Figure 13 illustrates how to mount the Panel onto your Display with Adjustable Hooks.

Figure 13



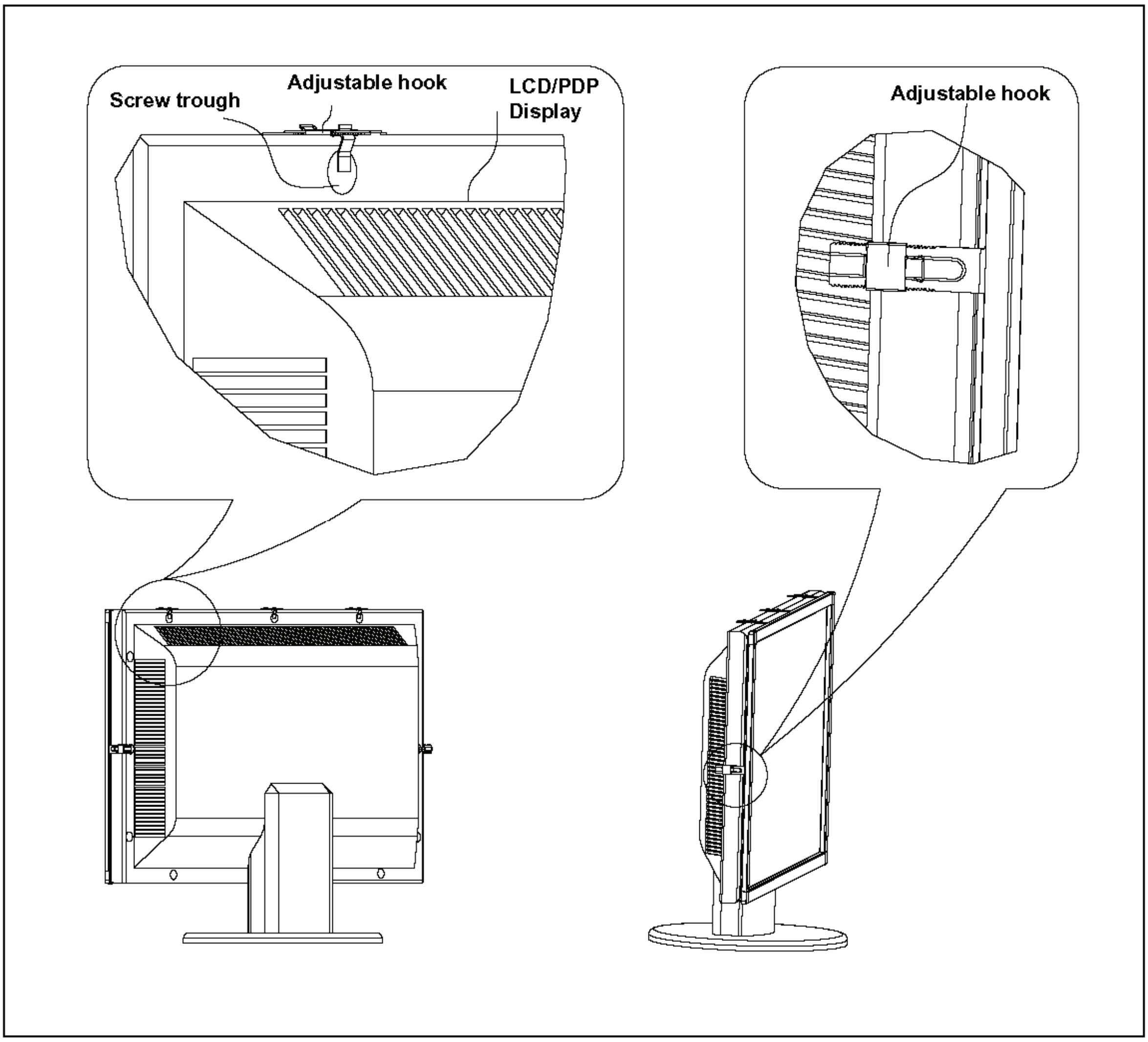
There are 2 different ways to mount the Panel onto your Display, as shown in **Figure 13**.

Following step 1: latch the top Hooks onto the Display first, then attach the Hooks on both sides.

Following step 2: slide the Panel down the Display from the top.

FIGURE 14 ILLUSTRATES HOW TO FASTEN THE ADJUSTABLE HOOKS.

FIGURE 14



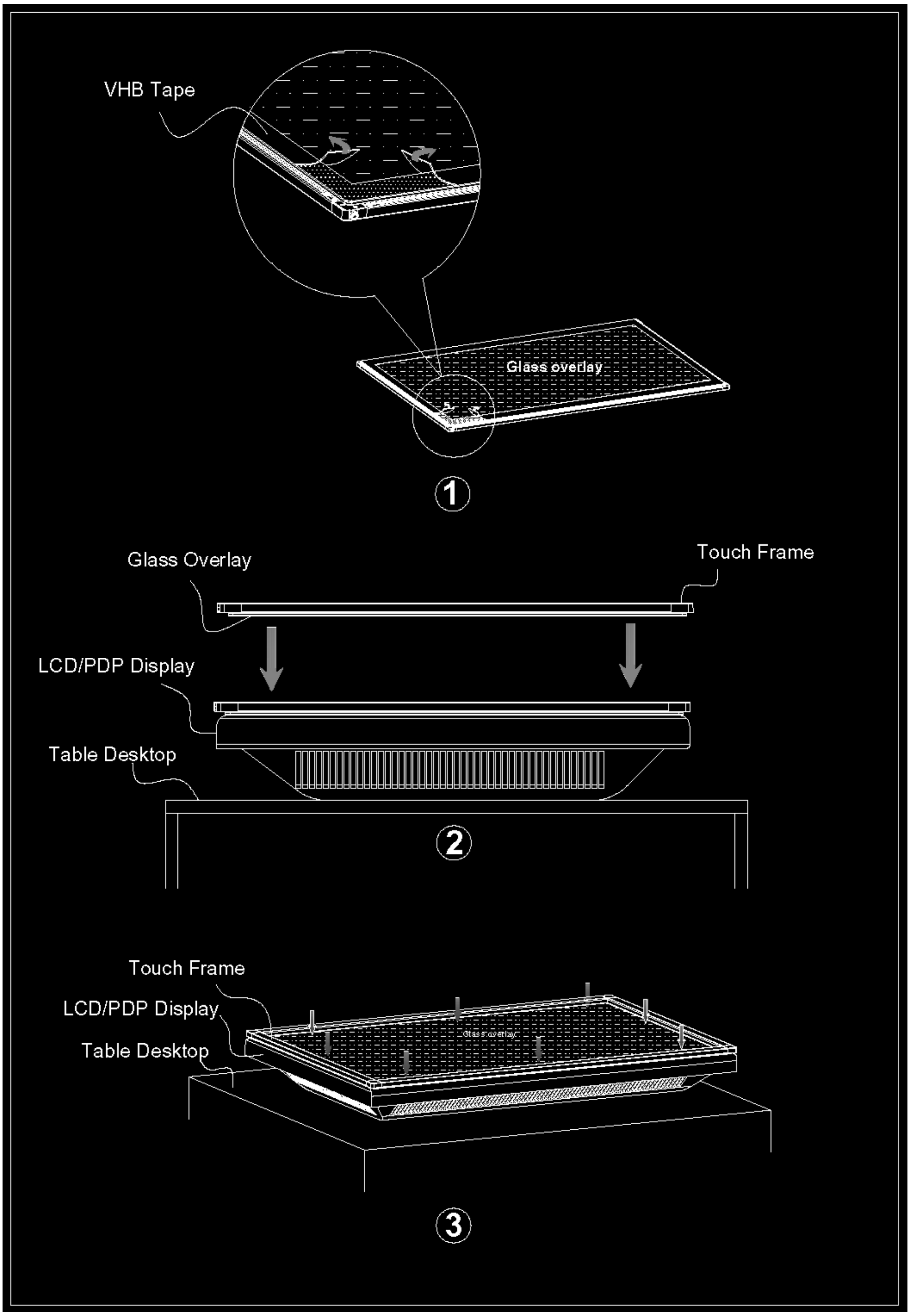
AFTER THE PANEL HAS BEEN MOUNTED, POSITION THE ADJUSTABLE HOOKS AT THE SAME SPOT AS THE SCREW HOLES ALONG THE BACK OF THE DISPLAY, THEN LOCK THEM INTO PLACE BY TIGHTENING THE HOOK.

4.6 MOUNTING THE FINEIR TOUCH PANEL ONTO THE DISPLAY BY ADHESION

IF IN A SITUATION WHERE ADJUSTABLE HOOKS ARE NOT APPLICABLE, AN ALTERNATIVE ADHESION METHOD CAN BE USED TO MOUNT THE PANEL.

FIGURE 15 ILLUSTRATES THE TYPICAL RECOMMENDATIONS FOR INTEGRATION BY ADHESION.

FIGURE 15

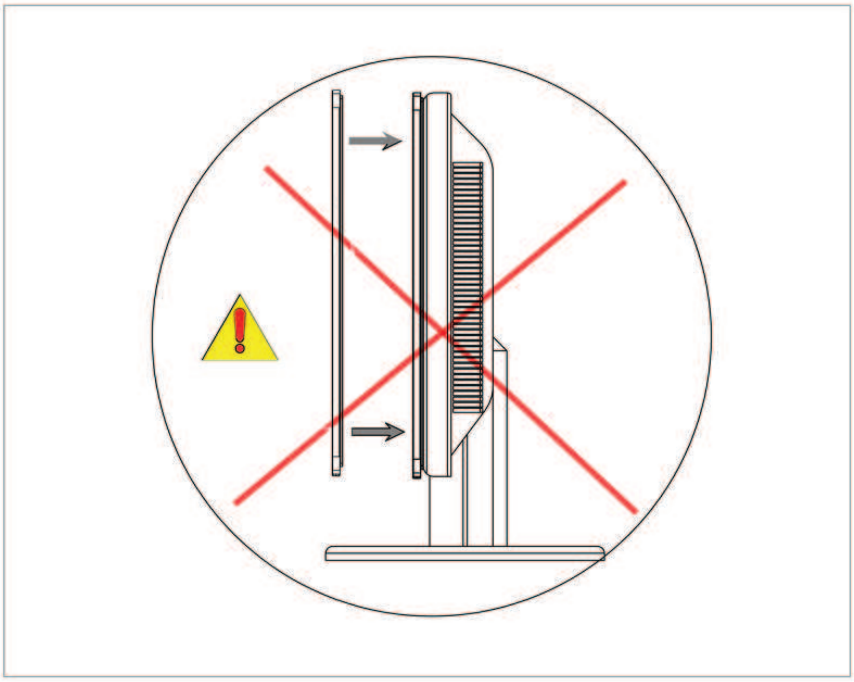


CARRY OUT THE FOLLOWING STEPS SHOWN IN **FIGURE15** TO MOUNT THE PANEL USING ADHESION:

- CLEAN THE SURFACE OF THE GLASS OVERLAY AND THE DISPLAY.
- APPLY THE 3M ADHESIVE ALONG THE EDGES OF THE GLASS OVERLAY PRECISELY AS SHOWN IN STEP 1.
- ATTACH FINEIR TOUCH PANEL ON THE SURFACE OF THE DISPLAY AS SHOWN IN STEP 2.
- IN ORDER TO GET A GOOD ADHESION RESULT, IT IS STRONGLY RECOMMENDED TO LAY THE DISPLAY DOWN HORIZONTALLY, AS SHOWN IN STEP 3, TO COMPLETE ADHESION.
- APPLY CONSTANT PRESSURE EVENLY OVER THE GLASS USING WEIGHTS. LET THE ADHESIVE DRY FOR AT LEAST 12 HOURS BEFORE PROCEEDING TO THE NEXT STEP.

WARNING!

- **DO NOT DIRECTLY MOUNT THE FINEIR TOUCH PANEL ONTO THE DISPLAY SURFACE IN A VERTICAL POSITION WITHOUT SECURING THE PANEL IN PLACE. BOTH THE TOUCH PANEL AND DISPLAY COULD BE DAMAGED AS A RESULT OF INCORRECT INSTALLATOIN.**



IMPORTANT!

- **MAKE SURE THAT THE PANEL IS PROPERLY ALIGNED TO BE IN THE MIDDLE OF VIEWABLE AREA OF THE DISPLAY. CHECK ALL ALONG THE EDGES OF THE DISPLAY TO ENSURE THAT THE PANEL IS PARALLEL TO THE DISPLAY AND IS NOT TILTED IN ANY DIRECTION.**
- **ANY ANGLE FORMED BETWEEN THE EDGE OF DISPLAY AND THE EDGE OF PANEL WILL CAUSE THE TOUCH PANEL TO BE INACCURATE, WHICH MAY PREVENT PROPER CALIBRATION.**